UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

DATE: JUN 2 1 2019

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Graphic Packaging International, Middletown, Ohio

FROM: Gina Harrison, Environmental Scientist
AECAB (MN/OH)

THRU: Dakota Prentice, Acting Section Chief
AECAB (MN/OH)

TO: File

BASIC INFORMATION

Facility Name: Graphic Packaging International

Facility Location: 407 Charles Street, Middletown, Ohio 45042
Date of Inspection: April 22, 2019

Lead Inspector(s):
1. Gina Harrison, Environmental Scientist

Other Attendees
1. Judy Arvan, Continuous Improvement Manager, Graphic Packaging International (GPI)
2. Greg France, Resident Mill Manager, GPI
3. David Dobbins, Environmental Health and Safety Manager, GPI

Contact email address: David.dobbins@graphicpkg.com

Purpose of Inspection: Determine compliance with the facility's Title V permit and the Ohio State Implementation Plan. Also, evaluate potentially applicable NSPS and/or NESHAPs.

Facility Type: Coated recycled paper packaging manufacturer

Regulations Central to Inspection: Ohio Title V Permit P0124398, Kraft Pulp Mill NSPS Subpart BB and BBa, and NESHAP for Pulp and Paper Production (MACT I and II) at 40 C.F.R. Part 63 Subpart S.

Arrival Time: 9:52 AM EDT
Departure Time: 12:15 PM EDT

Inspection Type:
☒ Unannounced Inspection
☐ Announced Inspection

OPENING CONFERENCE

☒ Credentials Presented
☒ CBI warning to facility provided

The following information was obtained verbally from David Dobbins, Greg France, or Judy Arvan.

Company Ownership: The facility has been operating since 1915, originally owned by the Gardner Family as the "Gardner Family Paper Mill." Jefferson-Smurfit bought the company and then sold the facility to Smurfit-Stone, who then sold it to Altivity Paper, who sold it to GPI.

Process Description:

The GPI Middletown facility makes coated recycled paper products, chiefly cereal and prepared food packaging. Raw materials include box cuts from customers who bale and ship the cuttings, cardboard, and scrap from printing processes back to GPI for processing. GPI creates a 5-ply paper board using a modified Manchester former machine to create a product with a machine direction (MD) to cross direction (CD) ratio of 3.1:1. Average production at the facility is around 485 tons of coated recycle board per day.

GPI operates two main production lines: stock prep and paper machine. The paper is formed from 99% water, 1% paper fiber, which is pumped into 5 in-line cylinders to create five separate ply – one back liner, one top liner, and 3 filler liners.

The general stock prep process flow is:

Waste paper >> Pulping >> Detrashing >> Cleaning >> Screening >> Storage

The stock prep process begins when bales of waste paper (double-lined Kraft, old corrugated containers, news clippings, and box cuts) are transferred from the receiving area to the pulping area mixed with water to defiber the waste paper. Next, the water/paper mixture is piped to the detrashing area in order to mechanically separate metal, glass, and other contaminants with a grappling hook. Rejects are sent separately to a landfill. After contaminant removal the mixture is piped to one of seven centrifugal cleaning stations where additional rejects flow to the bottom of the vessel and are removed. The first cylinder creates the back liner from newsprint, box cuts and brown cardboard, and the cylinders following in series create the three filler ply and the top ply stock streams. Each stock stream is comprised of 5% fiber and 95% water before it continues

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

- Records were reviewed on site during the inspection. Ms. Harrison reviewed the facility's 2018 annual Title V report. GPI reported 20 tons of VOC emitted per year.
- Mr. Dobbins verbally shared results from emission testing at the facility performed in 1998, 1999.

CLOSING CONFERENCE

Ms. Harrison thanked Ms. Arvan, Mr. France, and Mr. Dobbins for their time and told them she would send a copy of the inspection report by email when it was completed. We confirmed that nothing we had discussed was Confidential Business Information. Ms. Harrison stated that EPA may issue a Section 114 Information Request or follow up with questions via phone or email if further questions or concerns arise.

Requested documents: Ms. Harrison requested a copy of the facility's VOC emission calculations, which Mr. Dobbins explained would be available on the Ohio eBiz website.

Compliance Assistance: General compliance assistance was provided by discussing potential applicability of the Kraft Pulp Mills NSPS Subparts BB and BBa, the Pulp, Paper, and Paperboard Point Source Category at 40 C.F.R. Part 430, and the NESHAP for Pulp and Paper Production Subpart S, MACT I and III.

Concerns: Apart from discussing the NESHAPs and potential requirements therein, no additional concerns were shared with the facility at the time of the inspection.

SIGNATURES

Report Author: _____ Date: 6/21/19

Section Chief: _____ Date: 6/21/19

to the pressure screening station, which removes finer contaminants and sends fibers on to a storage tank, where the stock is stored until needed at the paper machine.

The general paper machine process flow is:

Machine screens >> Forming >> Pressing >> Drying >> Coating >> Roll Finishing

Production at the paper machine process is measured in tons of product. Duration of one production cycle at this stage (from machine screen to roll finishing) takes about 2.5 minutes total. The five machine screens introduce stock streams under pressure to five dedicated, in-line formers. Each former uses cylinders to layer ply on top of ply in order to meet the 5-ply specification. The conveyance system pulls the paper through each roll under vacuum to squeeze the water out. The paper is then conveyed to the pressing section where cylinders move the paper through additional rolls with attached felts to wick more water out of the paper. The rolls convey the paper to the drying section where it is dried through 125 steam-heated drying cans before the paper is sent to the coating section. Once the paper is fully dry, it is coated by a rod coater and air knife coater with two layers of a white latex paint and clay slurry – one primer layer, and one finishing coat. After coating, the roll of paper continues to roll finishing, where the coated paper product is wound into 45,000 feet rolls. Finally, rolls are slitted for conveyance into roll storage.

When the paper is finished, personnel quality test the product to ensure it meets "IGT" requirements, which Mr. France explained is a measure of the strength of ply that are bound.

Staff Interview: According to Mr. France and Ms. Arvan, the GPI Middletown facility currently employs 144 people and runs three shifts 24 hours per day, 7 days per week. This facility's paper product is typically smooth and stiff, and Mr. France further explained that each Midwest facility has its own different paper machine with different properties.

Production over the last two years averaged about 482 and 485 tons per day, which is an increase from 458 tons per day in 2016. The machines performed more efficiently in the last two years due to problem solving at certain process pinch points that were causing paper breaks, saving around 14-20 production hours per month.

TOUR INFORMATION

EPA toured the facility: Yes

Data Collected and Observations: Ms. Harrison observed the bale receiving area in the warehouse and the cleaners. Ms. Arvan explained the large diameter cleaners mean higher-density stock treatment. Incoming water is treated with biocide, and biocide is also added to stock at paper machines.

Ms. Harrison observed the cleaning cylinders, dryer, rod coater and rolling area in operation. Ms. Arvan explained there is no water treatment facility on site, but GPI's permit allows discharge of effluent directly to the POTW.

APPENDICES AND ATTACHMENTS

Atttachment A: Photo Log from April 22, 2019 Inspection of Graphic Packaging International, Middletown, Ohio

Image Number	File Name	Date and Time (incl. time zone and DST)	Latitude and Longitude	Description of Image
1	IMG_2679.JPG	2019:04:22 11:16:23	39.519978, -84.388022	Back liner loading system, filler pulper
2	IMG_2681.JPG	2019:04:22 11:16:53	39.5205, -84.387969	Back liner loading system, filler pulper
3	IMG_2682.JPG	2019:04:22 11:25:53	39.519039, -84.388397	Machine screens
4	IMG_2683.JPG	2019:04:22 11:28:04	39.519089, -84.388619	dryer
5	IMG_2684.JPG	2019:04:22 11:30:00	39.519561, -84.38945	coating operations
6	IMG_2685.JPG	2019:04:22 11:33:36	39.519753, -84.389878	rolling area

Attachment B: DVD with Photos from April 22, 2019 Inspection of Graphic Packaging International, Middletown, Ohio